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**ACTIVE DAMPING CONTROL FOR L-C OUTPUT FILTERS
IN THREE PHASE FOUR-LEG INVERTERS**

ABSTRACT

Methods and apparatus are provided for controlling an inverter with an under-damped L-C filter connected to a load. Samples of the inverter output are processed to generate voltage regulation signals and damping signals. The

5 voltage regulation signals include both regulating and imbalance compensating elements, and are further modified by the damping signals. The modified voltage regulation signals control the switching circuits of the inverter to stabilize the inverter output to the load.